

ABSTRACT

The present invention is a composition for modifying an amount of charges on a surface of a target particle in a sample and
5 separating or quantitatively determining the target particle in the sample, based on the modified surface charge amount, and relates to the composition comprising a charge control agent having a positive or negative charge in a solution and being capable of specifically binding to the target particle. The present
10 invention also relates to a method of separating or quantitatively determining the target particle in the sample. The above method comprises the steps of mixing a sample containing the target particle and a charge control agent specifically binding to the target particle and having a positive or negative charge in the
15 sample, and binding the charge control agent to the target particle; and separating or quantitatively determining the target particle provided with the charge control agent bound thereto, based on a surface charge modified by the binding of the charge control agent, by applying a voltage or current to the sample resulting
20 from the mixing.

(19) 世界知的所有権機関
国際事務局



(43) 国際公開日
2004 年 7 月 29 日 (29.07.2004)

PCT

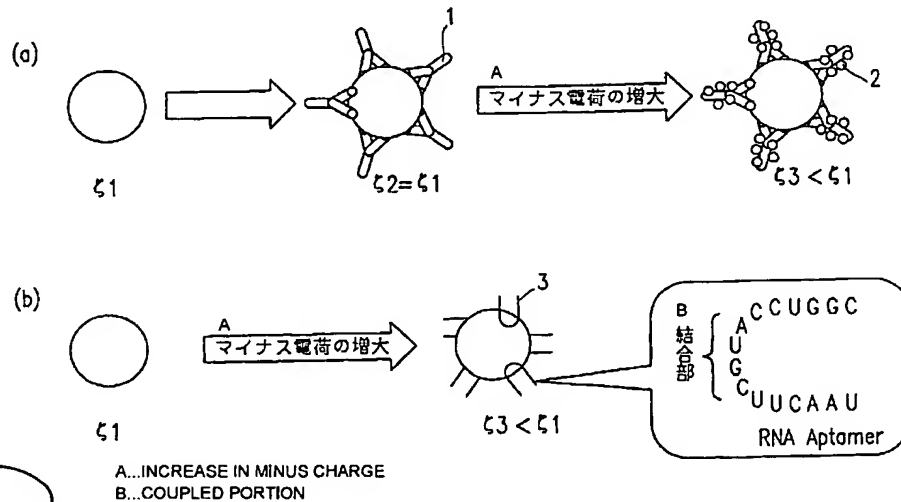
(10) 国際公開番号
WO 2004/063752 A1

- (51) 国際特許分類⁷: G01N 33/561, 27/447 (72) 発明者; および
(21) 国際出願番号: PCT/JP2004/000067 (75) 発明者/出願人 (米国についてのみ): 中山 浩
(NAKAYAMA, Hiroshi) [—/—].
(22) 国際出願日: 2004 年 1 月 8 日 (08.01.2004) (74) 代理人: 小笠原 史朗 (OGASAWARA, Shiro); 〒
5640053 大阪府吹田市江の木町 3 番 1 1 号 第 3 ロン
(25) 国際出願の言語: 日本語 チェビル Osaka (JP).
(26) 国際公開の言語: 日本語 (81) 指定国 (表示のない限り、全ての種類の国内保護が
可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR,
(30) 優先権データ: 特願2003-003941 2003 年 1 月 10 日 (10.01.2003) JP BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
(71) 出願人 (米国を除く全ての指定国について): 松下電 NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
器産業株式会社 (MATSUSHITA ELECTRIC INDUS- SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
TRIAL CO., LTD.) [JP/JP]; 〒5718501 大阪府門真市大 UZ, VC, VN, YU, ZA, ZM, ZW.
字門真 1 0 0 6 Osaka (JP).

[続葉有]

(54) Title: COMPOSITION CONTAINING PARTICLE SURFACE CHARGE CONTROL AGENT, PARTICLE SEPARATING METHOD USING SAME, PARTICLE SEPARATOR

(54) 発明の名称: 微粒子表面電荷制御剤を含む組成物、それを利用した微粒子分離方法および微粒子分離装置



(57) Abstract: A composition for separating or quantitatively determining target particles in a sample by changing the amount of charge on the surface of the particles and utilizing the changed charge. The composition including a charge control agent having a positive or negative charge in a solution and capable of specifically coupling to the target particles. A method for separating or quantitatively determining target particles in a sample is also disclosed. The method comprises a mixing step of mixing a sample containing target particles with a charge control agent capable of specifically coupling to the particles and having a positive or negative charge in the sample so as to couple the charge control agent to the particles and a step of separating or quantitatively determining the particles to which the charge control agent is coupled by applying a voltage or current to the sample obtained by the mixing and utilizing the surface charge of the particles changed by the coupling of the charge control agent.

(57) 要約: 本発明は、試料中の目的の微粒子の表面電荷量を改変し、当該改変された表面電荷量に基づいて、当該試料中の当該目的の微粒子を分離または定量するための組成物であって、溶

[続葉有]